

AMENDMENTS TO THE CLAIMS

Claims 1-28 (Cancelled).

29. (Currently Amended) A system for training firefighters to remain below a heat critical vertical boundary, the system comprising:

an emitter configured to establish a height limit, the emitter emitting a single signal;

a vertical support member adapted to ~~position the emitter at a vertical position to~~ establish the height limit at the vertical boundary; and

a wearable sensor configured to emit an alarm signal responsive to its intrusion above the vertical boundary, the sensor positioned to face towards the emitter when the firefighter is in a crawling or prone position;

wherein the emitter is adapted to turn 360° about the vertical support member to establish the vertical boundary around a 360° axis to replicate a heat critical vertical boundary to train firefighters;

the emitter and the vertical support configured to steadily move the vertical boundary downward while the emitter is rotating during a training exercise from a first vertical level to a lower second vertical level to replicate movement of the heat critical vertical boundary caused by smoke and heat that accumulates during a fire.

30. (Cancelled)

31. (Previously Presented) The system of claim 29, further comprising an adjustment mechanism to selectively position the emitter at selected vertical positions.

32. (Previously Presented) The system of claim 31, wherein the adjustment mechanism is configured to selectively position the emitter at selected angular positions.

33. (Previously Presented) The system of claim 29, wherein the emitter further comprises a receiver that receives signals from a remote control unit to remotely adjust the position of the emitter on the vertical support member.

34. (Previously Presented) The system of claim 29, wherein the sensor further includes a speaker to emit an audible sound responsive to intrusion above the height limit.

35. (Currently Amended) A method for training firefighters to remain below a heat critical vertical boundary, the system comprising:

attaching an emitter that emits a signal in one direction to a vertical support member;
rotating the emitter through 360° about the vertical support member with the signal forming a substantially continuous signal at the vertical boundary to replicate a heat critical vertical boundary;

replicating an accumulation of smoke and heat that occurs during a fire and moving the rotating emitter downward and thereby also moving the vertical boundary downward and reducing a size of a safety zone formed vertically below the vertical boundary; and

providing a wearable sensor positioned to face towards the emitter when the firefighter is in a crawling or prone position, the sensor configured to emit an alarm signal responsive to its intrusion out of the safety zone and above the vertical boundary to indicate that the firefighter has moved to an unsafe position above the heat critical vertical boundary.

Claims 36-37. (Cancelled)

38. (Previously Presented) The method of 37, wherein the step of defining the height limit at the vertical boundary comprises establishing the height limit at an angle relative to the floor.

39. (Previously Presented) The method of 35, further comprising configuring the wearable sensor to emit an audible alarm signal responsive to its intrusion above the height limit.

40. (Previously Presented) The method of 35, further comprising configuring the wearable sensor to stop emitting the alarm signal when the sensor is positioned back below the height limit.

41. (New) A method for training firefighters to remain below a heat critical vertical boundary, the system comprising:

- positioning in a room an emitter that emits a signal in one direction;

- creating a boundary at a first vertical distance above a floor of the room by rotating the emitter through 360° with the signal forming a substantially continuous signal, the boundary at the first vertical distance above the floor replicating a heat critical boundary at a first stage of a fire caused by smoke and heat in the room;

- continuously lowering the rotating emitter and the boundary towards the floor of the room below the first vertical distance and replicating the accumulation of the smoke and heat that build up in the room at later stages of the fire; and

- providing a wearable sensor positioned to face towards the emitter when the firefighter is in a crawling or prone position, the sensor configured to emit an alarm signal responsive to its intrusion above the boundary to indicate that the firefighter has moved to an unsafe position that occurs during the fire.